

REMARKS

Entry of the foregoing amendments and reconsideration of the above-identified application are respectfully requested in view of the remarks that follow.

I. Status of Claims:

Claims 1-52 are currently pending. By this response, independent claims 1, 14, 26, 39 and 52 have been amended. No new matter has been introduced.

II. Rejection Under 35 U.S.C. §103:

Claims 1-52 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 7,236,596 to Francine J. Prokoski (hereafter “Prokoski”) in view of U.S. Patent No. 7,003,113 to Kazuhiro Yanase (hereafter “Yanase”).

A. Independent Claims:

Initially, Applicants respectfully note that independent claims 1, 14, 26, 39 and 52 have amended as set forth above. Applicants are not conceding that the subject matter encompassed by the subject claims, prior to this amendment, is not patentable over the cited references. Rather, independent claims 1, 14, 26, 39 and 52 have been amended solely to facilitate expeditious prosecution of this application, by making the claimed subject matter more clear. To that end, the recitation of “positional information provided by a long range cellular network or short-range wireless communication medium”, in claim 1, for example, has been amended to now recite “positional information provided by a cellular network or short-range wireless communication medium”. Applicants submit that the foregoing amendment is merely stylistic rather than substantive. In other words, the recitation of “a long range cellular network” is more clearly understood when recited simply as “a cellular network”. Accordingly, it is believed that the scope and merits of claim 1 has not changed from Applicants’ previous recitations.

Before addressing the merits of the outstanding Office Action, Applicants bring to the Examiner’s attention some characteristics of the present application. In accordance with at least one embodiment of the instant invention, claim 1 is directed to authenticating multimedia

content, such as audio, video and photographic images, by creating a combined expression comprising the content and at least the data representing the location of its creation. Then a hash value is computed based on the combined expression of content and location data. The resulting hash value uniquely ties the content to the circumstances of its creation, e.g., the location and time of its creation, and also ensures the data integrity of the content, that the content has not been altered by unauthorized entities. **The location** data includes coordinates established through such systems as Bluetooth™, IEEE 802.11, Wireless LAN (WLAN), HiperLAN. The location data can also be retrieved from a mobile phone network wherein the location is determined based on one or more cells of the network. (See, e.g., page 4—line 4 to page 5—line 5 of the specification, as originally filed).

Using positional information provided via inexpensive and readily available communication means, such as, a cellular network or a short-range wireless medium, results in clear and unprecedented advantages, as compared to conventional systems. For example, at the time Applicants reduced this application to practice, Applicants recognized that an easier and more efficient model for protecting content could be afforded to content creators, if readily available communication means (e.g., a cellular network or a short-range wireless medium) were used. Communications systems as Bluetooth™, IEEE 802.11, Wireless LAN (WLAN), HiperLAN are widely available and easily accessible deep inside building structures and even in underground transportation locations. In contrast, conventional systems that rely solely on Global Positioning System (GPS) coordinates for obtaining positional information are ineffective in such unreachable locations, and are more expensive to operate due to the need of specialized GPS receiving units. As a result, Applicants' claim 1 is believed novel and non-obvious over conventional art.

Turning now to the merits of Applicants' claims, amended independent claim 1 recites, *inter alia*, "determining a current location for a multimedia device using positional information provided by a cellular network or short-range wireless communication medium".

Applicants respectfully submits that neither Prokoski nor Yanase—either alone or in combination—disclose or suggest at least the aforementioned feature of amended independent claim 1. Accordingly, without conceding the propriety of the combination, Applicants submit

that the combination of Prokoski and Yanase is deficient, even in view of the knowledge of those of ordinary skill in the art. As a result, the Office Action fails to establish a *prima facie* case of obviousness.

Prokoski discloses a digital video camera comprising an Imaging and Encoding Subsystem that includes a digital imaging sensor, a GPS receiver, a Greenwich Mean Time (GMT) receiver, the camera ID, a frame counter and an encoding generator. The camera captures and stores frames of imagery in a digital buffer, whereby the frame number is incremented and stored. The GMT receiver captures and stores the time; and GPS receiver captures and stores the location. FIG. 1 shows a method of encoding imagery captured by the camera. Namely, the image is captured, and then authentication information is recorded at the time and place of capturing. An encoding process uses the camera ID, frame location, and time to produce an encoded image. An encrypter encrypts the encoded image to produce an encrypted encoded image (step 109 in FIG 1). The resultant image is transmitted, output or stored (step 112). [C6, L60 – C7, L17]. **Accordingly, in Prokosky, it is the GPS receiver which captures and stores the location information.**

Yanase is drawn to a position authentication system and electronic equipment using the same. FIG. 1 of Yanase illustrates a digital camera 1 with a GPS receiver 2 and storage device 3. The digital camera 1 writes photographed image data into the storage device 3, and at the same time, it receives GPS electric wave 5 from GPS receiver 2 and generates latitude/longitude information. The GPS receiver 2 encrypts and transmits the latitude/longitude information as position information to center system 4. The center system 4 uses the position information to generate place-specifying data to apply to a copy guard process and transmits the place-specifying data to the digital camera 1. [C3, L60 – C4, L24]. **Accordingly, in Yanase too, it is the GPS receiver 2 which receives GPS electric wave 5 to generate the latitude/longitude information.**

In view of the above, Applicants respectfully submit that neither Prokosky nor Yanase (either taken alone or in combination) can reasonably be construed as disclosing “determining a current location for a multimedia device using positional information provided by a cellular network or short-range wireless communication medium”, or “computing location-

based authentication data using the positional information”, as recited in amended claim 1 (emphasis added).

As a result, Applicants respectfully assert that none of the cited references (i.e., Prokosky and Yanase), either taken alone or in combination, teach or suggest each and every element as set forth in Applicants’ amended claim 1. Accordingly, claim 1 is believed to be patentably distinguished from the cited references, and in condition for allowance. Independent claims 14 and 52 have been amended to recite at least the distinguishable features discussed above with respect to claim 1. Therefore, Applicant respectfully asserts that independent claims 14 and 52, as amended herein, and claims dependent thereupon, are also allowable over the cited references.

Further to the forgoing arguments regarding the allowability of claim 1, Applicant respectfully notes that claim 26 recites additional features that are neither taught nor suggested by the cited references. Namely, in addition to features similar to those found in claim 1, claim 26 recites, *inter alia*:

receiving digital multimedia content created on a multimedia device into a context server through a wireless communication network;

receiving location-based authentication data computed using the positional information through a network into an authentication server, wherein the location-based authentication data is correlated with the multimedia device that created the multimedia content;

forwarding the correlated location-based authentication data to the context server; and

executing an encryption algorithm in the context server, wherein the correlated location-based authentication data is encoded into the multimedia content by computing a hash value on a combined expression of the multimedia content said location-based authentication data and identification data including at least one of user identification data and device identification data, to create a multimedia content identity key that authenticates the multimedia content as being created at a certain physical location and time.

In accordance with at least one exemplary embodiment, there exists an interaction between a context server and an authentication server, wherein the context server may receive multimedia content and the authentication server may separately receive location-based authentication which is then correlated. The correlated location-based authentication information may then be passed to the context server where it is encoded into the multimedia content.

Regarding claim 26, the Office Action cites the same sections of Prokosky and Yanase as those used in rejecting claim 1. Applicants respectfully assert that, in addition to the above-noted deficiencies, the combination of references, as proposed by the Office Action, do not teach or suggest “a context server” and “an authentication server” in the context required by amended claim 26.

As a result, Applicant respectfully submits that the cited references, either taken alone or in combination, do not render obvious amended claim 26. Independent claim 39 includes at least similar features as those found in claim 26. Accordingly, claims 26 and 39, and claims dependent thereupon, are also patentably distinguishable from the cited references, and in condition for allowance.

B. Dependent Claims:

Claim 4 recites, *inter alia*, “the physical location is determined through a connection to a personal area network.”

Claim 5 recites, *inter alia*, “the physical location is determined through a connection to a Bluetooth™ terminal.”

Claim 6 recites, *inter alia*, “the physical location is determined through a connection to a WLAN terminal.”

Regarding claims 4-7, the Office Action provides “Yanase discloses the different types of networks see Col 5 Ln 33-49.” (Office Action, page 3).

Column 5, lines 33-49 of Yanase read as follows:

In FIG. 4, a user takes a photograph of a desired subject by using digital camera 15 to obtain image data, and the image data thus obtained are written into processor 16 of the digital camera 15. At the same time, GPS receiver 2 receives GPS electric wave 5 transmitted from GPS satellite group 8 at all times to generate latitude/longitude information, and inputs the latitude/longitude information to the processor 16.

The processor 16 encrypts the image data and the latitude/longitude information corresponding to the image data on the basis of a predetermined encrypting key, and transmits these data to center system 20. The center system 20 receives transmission information from the digital camera 15, and decodes the information by authentication unit 21 thereof. If the decoding is carried out normally, decoded image data 23 are supplied to copy guard device 22, and also supplies latitude/longitude information 12 to place specifying data base 10.

Applicants respectfully submit that Yanase does not teach or suggest any of the recited features of the above-listed claims 4-7. Applicants have also carefully reviewed the remainder of the Yanase and Prokosky disclosures and find no teachings of the features recited in claims 4-7. Thus, for at least this additional reason, the cited references, taken alone or in combination, do not render obvious claims 4-7.

Regarding claims 22-25, 27-30 and 40-43, the Office Action reads “Brothers discloses the video, audio, and image data see Fig. 4 & Col 7 Ln 19-23.” (Office Action, page 4).

Applicants respectfully note the it is unclear as to propriety of the citation of the Brothers reference. Please note that the Office Action initially recites that “Claims 1-52 are rejected ... over US Patent 7236596 to Prokoski in view of US Patent 7003113 to Yanase”. (Office Action, page 2). Accordingly, Applicants submit that the rejection of claims 22-25, 27-30 and 40-43 is over “Brothers” is improper.

Applicants do not believe it necessary at this time to further address the rejections of other dependent claims as Applicants believe that the forgoing amendments and remarks patentably distinguish all of the pending claims over the cited references. Applicants, however, reserve the right to address those rejections in the future should such a response be deemed necessary and appropriate.

CONCLUSION

Based on the foregoing amendments and remarks, Applicants respectfully request reconsideration and withdrawal of the rejection of claims and allowance of this application.

AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Document to Deposit Account No. **504827**, Order No. 1004289-046US(4208-4038).

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. **504827**, Order No. 1004289-046US(4208-4038).

Respectfully submitted,
Locke Lord Bissell & Liddell LLP

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By:



Elliot Frank (Reg. No. 56,641) for
Pedro A. Rojas (Reg. No. 63,008)

Correspondence Address:

Locke Lord Bissell & Liddell LLP
Customer No. 85775

(212) 415-8600 Telephone
(212) 303-2754 Facsimile